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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,311	04/14/2000	Jouni Pyotsia	PM 268185	9122

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EXAMINER	
BARNES, CRYSTAL J	

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 10/27/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/550,311	PYOTSIA ET AL.	
	Examiner	Art Unit	
	Crystal J. Barnes	2121	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *1 and 5* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,6-8,11,14 and 15* is/are rejected.

7)☒ Claim(s) *9,10,12 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *23 July 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings were received on 23 July 2003. These drawings are acceptable.

Response to Arguments

2. Applicant's arguments with respect to claims 2, 4 and 6-15 have been considered but are moot in view of the new ground(s) of rejection.

3. The Office Action (paper no. 7) mailed 26 March 2003 is hereby incorporated by reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 6,139,177 to Venkatraman et al. ('177 Venkatraman et al.)

As per claim 2, the Tapperson et al. reference discloses a control system for controlling, configuring or monitoring field devices in an industrial process, said control system being connected to a plurality of field devices and comprising at least one mobile terminal (see figure 2 and column 6 lines 31-36, "handheld control unit 110") arranged to communicate with the control system (see figure 2 and column 6 lines 19-28, "DCS 56, 58") over a cellular communication system (see column 6 lines 39-52, "wireless Fieldbus connection") in order to selectively remotely control, configure or monitor the field devices (see column 6 lines 56-59, "field device"); and an interactive user interface (see column 7 lines 28-31, "handheld unit 110, terminal 104") associated with the control system ("DCS 56, 58"), said user interface ("handheld unit 110, terminal 104") utilizing configuration, control and management data maintained in at least one database of the control system ("DCS 56, 58") and being accessible by the mobile terminal ("handheld unit 110") through a dedicated data connection established over the cellular communication system (see column 7 lines 22-26, "Field module 82"), in order to

selectively control, configure or monitor the field devices (see column 7 lines 22-26 and 48-55, "field devices") connected to the control system ("DCS 56, 58"), said interactive user interface ("handheld unit 110, terminal 104") being configured to modify content of the interactive user interface ("handheld unit 110, terminal 104") in response to requests or selections made by the mobile terminal ("handheld unit 110") and based on the configuration, control and management data retrieved from said at least one database of the control system ("DCS 56, 58"), and to create control or configuration commands to the control system ("DCS 56, 58") in response to selections or inputs made by the mobile terminal user in the interactive user interface ("handheld unit 110, terminal 104").

The Tapperson et al. reference does not expressly disclose an interactive user interface associated with the control system.

The '177 Venkatraman et al. reference discloses

(see figure 1 and column 3 lines 20-30, "... user to access and control the device 10 using an external browser ... control device-specific functions of the device 10 ...")

(see column 4 lines 1-17, "... device home page 18 to requesting HTTP clients via the communication path 22.")

(see column 4 lines 18-31, "The device 10 also represents a variety of measurement instruments ...")

(see column 4 lines 32-42, "The communication path 22 represents any communication means ... The communication path 22 may be realized by a wide variety of communication mechanisms ... direct Internet connection to the world wide web.")

(see figure 2 and column 4 lines 43-51, "The web browser 40 accesses and controls the device 10 via the network 30 ... using HTTP protocols.")

(see column 4 lines 62-67, "The web browser 40 includes a display 42 for generating ... graphical user interface objects. The web browser 40 includes a selection device 44 that enables a user to select enter information ...")

(see column 5 lines 11-15, "The web browser 40 may also be embodied in a variety of other devices ... telephone systems ... low cost web browser devices ...")

(see column 5 lines 16-30, "The network 30 may be implemented with a variety of communication mechanisms ... radio frequency communication links ... world wide web communication between the web browser 40 and the device 10.")

(see column 5 lines 36-45, "... device home page 18 of the device 10 using a web browser ...")

(see column 5 lines 56-62, "... device home page 18 from the memory in response to the HTTP command from the web browser 40 ...")

(see column 6 lines 53-64, "... selecting the hyperlink 66 using the web browser 40.")

(see column 8 lines 43-52, "In response to the submit button 176, the web browser 40 ... HTTP protocol.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the handheld unit taught by the Tapperson et al. reference with the web browser taught by the '177 Venkatraman et al. reference.

One of ordinary skill in the art would have been motivated to include the functionality of the web browser into the handheld unit to illustrate a method of accessing/controlling devices remotely over a network.

As per claim 3, the '177 Venkatraman et al. reference discloses said control system controls (see figure 1 and column 3 lines 20-30, "web core 14") or configures (see column 3 lines 31-38, "device configuration 19") the field devices ("device 10") according to the commands (see column 3 lines 1-10, "HTTP commands") from the inactive user interface ("web browser 40").

As per claim 15, the rejection of claim 1 is hereby incorporated and further claim 15 contains limitations recited in claim 1; therefore claim 15 is rejected under the same rationale as claim 1.

6. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 6,139,177 to Venkatraman et al. ('177 Venkatraman et al.) as applied to claims 2, 3 and 15 above, and further in view of USPN 6,460,060 B1 to Maddalozzo, Jr. et al.

As per claim 11, Tapperson et al. reference discloses the control system for controlling, configuring, or monitoring field devices in an industrial process said control system being connected to a plurality of field devices and comprising: at least one mobile terminal ("handheld unit") arranged to communicate with the control system over a cellular communication system ("network") in order to selectively remotely control, configure or monitor the field devices ("field devices"); a World Wide Web (WWW) server ("web server") associated with the control system, said WWW server ("web server") utilizing configuration, control and management data maintained in at least one database of the control system for providing at least one interactive WWW page ("web page") which is accessible

through a TCP/IP network and a data connection between the mobile terminal and an access server connected to the TCP/IP network ("network"); and a browser ("web browser") in the mobile terminal ("handheld unit") for interacting with the interactive WWW page ("web page") through said data connection, access server and the TCP/IP network, in order to selectively control, configure or monitor the field devices ("field devices") connected to the control system, wherein the WWW server ("web server") comprises a search function which, in response to an identity of a field device sent from the mobile terminal, searches the WWW page of the respective field device.

The modified teachings of both the Tapperson et al. and '177 Venkatraman et al. references do not expressly disclose a search function which, in response to an identity of a field device sent from the mobile terminal, searches the WWW page of the respective field device.

The Maddalozzo, Jr. et al. reference discloses

(see column 4 lines 10-16, "... web browser search client 202...")

(see column 4 lines 18-30, "The URL ... World Wide Web 204 ...")

(see column 4 lines 45-60, "... web browser to automatically access and search remote web pages ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the web browser handheld unit taught by both the Tapperson et al. and '177 Venkatraman et al. references to illustrate a web browser having search capabilities.

One of ordinary skill in the art would have been motivated to illustrate a web browser having search capabilities to provide a method for automatic keyword searching on the Internet or in a cache of web pages stored on a data processing system.

As per claim 6, the '177 Venkatraman et al. reference discloses said WWW server (see figure 2 and column 4 lines 43-48, "web server 50") is configured to modify the content of the interactive WWW pages (see column 3 lines 1-4, "home page 18, web pages 28, 29") in response to requests or selections (see column 4 lines 64-67, "selection device 44") made by the mobile terminal (see column 5 lines 11-15, "telephone systems") and based on the configuration, control and management data of said at least one database of the control system, and to create control or configuration commands (see column 3 lines 1-4, "HTTP commands") to the control system in response to selections or inputs ("selection

device 44") made by the mobile terminal user in the interactive WWW pages ("home page 18, web pages 28, 29").

7. Claims 4, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 5,956,487 to Venkatraman et al. ('487 Venkatraman et al.)

As per claim 4, the Tapperson et al. reference discloses a control system for controlling, configuring or monitoring field devices in an industrial process, said control system being connected to a plurality of field devices and comprising at least one mobile terminal (see figure 2 and column 6 lines 31-36, "handheld control unit 110") arranged to communicate with the control system (see figure 2 and column 6 lines 19-28, "DCS 56, 58") over a cellular communication system (see column 6 lines 39-52, "wireless Fieldbus connection") in order to selectively remotely control, configure or monitor the field devices (see column 6 lines 56-59, "field device"); and an interactive user interface (see column 7 lines 28-31, "handheld unit 110, terminal 104") associated with the control system ("DCS 56, 58"), said user interface ("handheld unit 110, terminal 104") utilizing configuration, control and management data maintained in at least one database of the control

system ("DCS 56, 58") and being accessible by the mobile terminal ("handheld unit 110") through a dedicated data connection established over the cellular communication system (see column 7 lines 22-26, "Field module 82"), in order to selectively control, configure or monitor the field devices (see column 7 lines 22-26 and 48-55, "field devices") connected to the control system ("DCS 56, 58"), wherein the identity of the field device is a tag number of the field device.

The Tapperson et al. reference does not expressly disclose an interactive user interface associated with the control system and the identity of the field device is a tag number of the field device.

The '487 Venkatraman et al. reference discloses

(see column 3 lines 19-21, "The HTTP commands may be used by web clients to read information from the device 10 ...")

(see column 3 lines 28-33, "... the web server 18 that defines a set of user interface functions for the device 10.")

(see column 3 lines 35-41, "The web page 18 may also define control buttons ...")

(see column 3 lines 56-59, "The device 10 also represents a variety of measurement instruments ...")

(see columns 3-4 lines 62-4, "... any communication means ... a wide variety of communication mechanisms ... direct Internet connection to the world wide web.")

(see column 4 lines 13-16, "... the processor 200 stores the web page 18 in the memory 210 which may also be used to store information associated with normal device-specific functions.")

(see column 5 lines 3-8, "... cellular transmitter/receiver circuitry enables a web browser to access control and status information ...")

(see figure 2 and column 5 lines 29-35, "... web browser 40 to access the user interface functions of the device 10.")

(see column 5 lines 36-42, "... graphical user interface objects ... selection device 44 ...")

(see column 5 lines 60-64, "... telephone systems ... low cost web browser devices ...")

(see column 5 lines 65-67, "... URL corresponding to the device 10 into the web browser 40.")

(see column 7 lines 1-4, "... a location ...")

(see figure 4 and column 7 lines 30-35, "... may access the device web pages of the devices 10 and 50-52 ...")

(see column 7 lines 36-50, "... a URL corresponding to the desired one of the devices 10 and 50-52 ... particular web browser application ... desired URL ... targeted device ...")

(see figure 5 and column 7 lines 52-56, "... direct Internet connection to the world wide web 100.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the handheld unit taught by the Tapperson et al. reference with the web browser taught by the '487 Venkatraman et al. reference.

One of ordinary skill in the art would have been motivated to include the functionality of the web browser into the handheld unit to illustrate a method of accessing/controlling devices remotely over a network by identifying devices with URLs that may include tag numbers of field devices as identification.

As per claim 15, the rejection of claim 4 is hereby incorporated and further claim 15 contains limitations recited in claim 4; therefore claim 15 is rejected under the same rationale as claim 4.

As per claim 14, the rejection of claim 4 is hereby incorporated and further claim 14 contains limitations recited in claim 4; therefore claim 14 is rejected under the same rationale as claim 4.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 5,956,487 to Venkatraman et al. ('487 Venkatraman et al.) as applied to claims 4, 14 and 15 above, and further in view of USPN 6,560,640 B2 to Smethers.

As per claim 8, the '487 Venkatraman et al. reference discloses a Wireless Application Protocol (WAP) (see column 7 lines 37-42, "web browser application") is used between the access server (see column 3 lines 8-10, "network interface 12") and the mobile terminal (see column 5 lines 60-64, "web browser 40"), and a WWW protocol (see column 5 lines 60-64, "HTTP") is used between the access server ("network interface") and the WWW server (see column 3 lines 13-19, "web server").

The Smethers reference discloses

(see column 6 lines 39-49, "The communication protocol ... Wireless Access Protocol (WAP) ...")

(see column 7 lines 17-20, "... wireless client device 100 ...")

(see column 10 lines 59-65, "... first communication protocol ... second communication protocol ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the web browser handheld unit taught by both the Tapperson et al. and '487 Venkatraman et al. references with the wireless client device taught by the Smethers reference to illustrate various communication protocols.

One of ordinary skill in the art would have been motivated to illustrate various communication protocols to improve transmission efficiency and/or reduce amounts of memory resources.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 5,956,487 to Venkatraman et al. ('487 Venkatraman et al.) as applied to claims 4, 14 and 15 above, and further in view of USPN 6,460,060 B1 to Maddalozzo, Jr. et al.

As per claim 11, Tapperson et al. reference discloses the control system for controlling, configuring, or monitoring field devices in an industrial process said

control system being connected to a plurality of field devices and comprising: at least one mobile terminal ("handheld unit") arranged to communicate with the control system over a cellular communication system ("network") in order to selectively remotely control, configure or monitor the field devices ("field devices"); a World Wide Web (WWW) server ("web server") associated with the control system, said WWW server ("web server") utilizing configuration, control and management data maintained in at least one database of the control system for providing at least one interactive WWW page ("web page") which is accessible through a TCP/IP network and a data connection between the mobile terminal and an access server connected to the TCP/IP network ("network"); and a browser ("web browser") in the mobile terminal ("handheld unit") for interacting with the interactive WWW page ("web page") through said data connection, access server and the TCP/IP network, in order to selectively control, configure or monitor the field devices ("field devices") connected to the control system, wherein the WWW server ("web server") comprises a search function which, in response to an identity of a field device sent from the mobile terminal, searches the WWW page of the respective field device.

The modified teachings of both the Tapperson et al. and '487 Venkatraman et al. references do not expressly disclose a search function which, in response to an identity of a field device sent from the mobile terminal, searches the WWW page of the respective field device.

The Maddalozzo, Jr. et al. reference discloses

(see column 4 lines 10-16, "... web browser search client 202...")

(see column 4 lines 18-30, "The URL ... World Wide Web 204 ...")

(see column 4 lines 45-60, "... web browser to automatically access and search remote web pages ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the web browser handheld unit taught by both the Tapperson et al. and '177 Venkatraman et al. references to illustrate a web browser having search capabilities.

One of ordinary skill in the art would have been motivated to illustrate a web browser having search capabilities to provide a method for automatic keyword searching on the Internet or in a cache of web pages stored on a data processing system.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,793,963 to Tapperson et al. in view of USPN 5,956,487 to Venkatraman et al. ('487 Venkatraman et al.) as applied to claims 4, 14 and 15 above, and further in view of USPN 6,460,060 B1 to Maddalozzo, Jr. et al. and further in view of USPN 6,560,640 B2 to Smethers.

As per claim 7, the '487 Venkatraman et al. reference discloses a Wireless Application Protocol (WAP) (see column 7 lines 37-42, "web browser application") is used between the access server (see column 3 lines 8-10, "network interface 12") and the mobile terminal (see column 5 lines 60-64, "web browser 40"), and a WWW protocol (see column 5 lines 60-64, "HTTP") is used between the access server ("network interface") and the WWW server (see column 3 lines 13-19, "web server").

The Smethers reference discloses

(see column 6 lines 39-49, "The communication protocol ... Wireless Access Protocol (WAP) ...")

(see column 7 lines 17-20, "... wireless client device 100 ...")

(see column 10 lines 59-65, "... first communication protocol ... second communication protocol ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the web browser handheld unit with searching capabilities taught by the Tapperson et al., '487 Venkatraman et al., and Maddalozzo, Jr. et al. references with the wireless client device taught by the Smethers reference to illustrate various communication protocols.

One of ordinary skill in the art would have been motivated to illustrate various communication protocols to improve transmission efficiency and/or reduce amounts of memory resources.

Allowable Subject Matter

11. Claims 9, 10, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to user interfaces of web browsers in general:

WO 99/07128 to KELLERER

US Pub. No. 2001/0012024 A1 to Rosin et al.

US Pub. No. 2002/0049637 A1 to Harman et al.

The following patents are cited to further show the state of the art with respect to remote control utilizing handheld devices in general:

USPN 6,061,603 to Papadopoulos et al.

USPN 6,154,658 to Caci

USPN 6,363,419 B1 to Martin, Jr. et al.

USPN 6,549,773 B1 to Linden et al.

The following patents are cited to further show the state of the art with respect to remote file management in general:

USPN 6,098,067 to Erickson

USPN 6,421,716 B1 to Eldridge et al.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703.305.0282. The fax phone

number for the organization where this application or proceeding is assigned is 703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

cjb
October 16, 2003

Ramesh Patel 10/17/03
RAMESH PATEL
PRIMARY EXAMINER
For Anil Khatri